In the Supreme Court
OF THE
United States

OCTOBER TERM, 1971

No. 71-1354

WESTINGHOUSE ELECTRIC CORPORATION, *Petitioner*,

vs.

TITANIUM METALS CORPORATION OF AMERICA, *Respondent*.

BRIEF IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI

PRELIMINARY STATEMENT

This case presents no important or novel question. There is no conflict of decisions. The court of appeals applied standards long settled by this Court. The essential issue in the district court was the obviousness or unobviousness of the claimed "invention" to a person of ordinary skill in the pertinent art. The district court concluded that the subject matter as a whole was obvious to such a person; the court of appeals found no reason to disturb that conclusion.

Petitioner urges upon this Court the same points and arguments made in its petition for rehearing to the court

of appeals. The petition for rehearing was denied without dissent by the full panel of judges before whom the appeal was argued, and no judge of that court requested a vote on the suggestion for rehearing in banc (Petn. p. 10a).

QUESTION PRESENTED

Petitioner's statement of the question presented for review is inaccurate. It turns on taking from the opinion below selected words out of context and from them constructing a "standard" which is then erroneously attributed to the court.

The question decided by the court below was whether the district court properly applied the undisputed criteria of obviousness, as laid down by this Court in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), to the facts of the case as stated in the undisputed findings of fact (454 F.2d 517; Petn. p. 4a).[1] The court below held that the district court had done so. This is not a question appropriate to the exercise of this Court's jurisdiction on certiorari.

STATEMENT OF THE CASE

This is a suit for infringement of a patent dealing with a process for double melting refractory metals, such as zirconium and titanium, and their alloys, for improving

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[1] "The parties are not in dispute as to these criteria—they simply disagree as to whether the district court properly applied them in this case under the undisputed findings of fact. * * * The * * * inquiry is whether, in view of the undisputed *John Deere* criteria, the findings of the district court support its conclusion that the process in question was obvious on April 4, 1952, to a person having ordinary skill in the art" (454 F.2d 517).

homogeneity and soundness of the metal (306 F.Supp. 402; FF 5; Petn. p. 12a).[2] The defense was invalidity of the patent because of obviousness of the subject matter at the time the invention was made to a person having ordinary skill in the pertinent art (35 U.S.C. § 103). The district court concluded that the subject matter was thus obvious for two reasons: (1) the prior art, and (2) the practically contemporaneous and independent development of an identical process by others (306 F.Supp. 402, 414; Petn. pp. 33a-34a). The court of appeals sustained the judgment on the first ground, finding it unnecessary to consider the second (454 F.2d 518; Petn. p. 6a).

In nontechnical terms, the alleged invention consists simply of eliminating an intermediate step (forging and rolling) between two successive meltings of the metal by a so-called consumable arc melting technique wherein a compacted mass of the metal to be melted is itself employed as an electrode and is melted by the heat of the electric arc. (The process is analogous to suspending a lighted candle over a cup: the molten tallow falls into the cup and solidifies into a solid mass as molded by the cup.)

Earlier processes included: a first melting which left the resulting ingot lacking in the requisite homogeneity and soundness; an intermediate step of either rolling the sheet and chopping it into small pieces; with a final step of arc remelting the pieces with a nonconsumable or tungsten electrode (petitioner's "WAPD" process, FF 13; Petn.

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[2]In this Brief in Opposition, the following abbreviations are used: "Petn." for the petition for certiorari, "FF" for the district court's findings of fact, "CL" for its conclusions of law, "Sx O" for a binder of stipulated prior art and other publications, "CCPA" for Court of Customs and Patent Appeals.

p. 14a); or alternatively of rolling the first ingot into bars of smaller dimensions and consumably arc melting the bars into a final ingot (the Bureau of Mines "828" process, FF 19, 20; Petn. pp. 15a-16a). The "828" process demonstrated that enough blending of the ingredients could be achieved by the forging and rolling and consumable remelting technique to result in the necessary improvement in homogeneity and soundness (FF 20; Petn. p. 16a).

Prior to the alleged invention it was appreciated by those skilled in the art that forging and rolling prior to remelting costs time and money and adds contamination (FF 27; Petn. p. 17a). The evidence was in conflict (not resolved by the trial court) whether the intermediate step of the "828" process contributed anything to the homogeneity and soundness of the final product (454 F.2d 516, n. 1; Petn. p. 2a).

At the time of the claimed invention these processes were known:

(1) The consumable electrode arc melting technique and apparatus employed in the patented process in question (Parke et al, Sx O pp. 14-25; FF 17, Petn. p. 14a);

(2) Nonconsumable electrode arc melting (wherein the electrodes are independent of the material to be melted) and remelting for improving homogeneity and soundess (FF 19, Petn. p. 15a);

(3) Consumable electrode arc melting and remelting, with intermediate resizing by forging and rolling to fit the feed rolls of the melting furnace for remelting (the "828" process, 454 F.2d 516, n. 1, Petn. p. 2a; FF 19, Petn. p. 15a);

(4) Nonconsumable arc melting and remelting of refractory metals (titanium, zirconium and alloys thereof) 50-gram buttons, without intermediate forging or rolling, to improve the homogeneity of the metal (FF 14, Petn. p. 14a; Kroll Sx O pp. 1-13; Hayes et al, Sx O pp. 65-67). It is to be noted that the *prior published art also taught the omission of this intermediate step in consumable arc remelting so as to provide direct consumable arc remelting of an ingot as an ingot* (Sx O p. 41, par. 2, as discussed below), a disclosure which the district court apparently overlooked in its finding to the contrary (FF 16, Petn. p. 14a).

Thus in the prior art there already were: the general technique and apparatus of consumable electrode arc melting (item (1) above); double melting of refractory metals for improving homogeneity and soundness (item (2)); consumable electrode double arc melting with the contamination-causing and time-and-money-consuming intermediate forging and rolling (item (3)); and nonconsumable double arc melting without intermediate forging or rolling (item (4)). The claimed "invention" consists merely of leaving out the intermediate step in item (3) in accordance with the proven technique of item (4)—a process already disclosed in Sx O p. 41 as above noted.

ARGUMENT

I. The Court Below Specifically and Expressly Applied the Standards of Obviousness Laid Down by this Court in Graham v. John Deere Co. Petitioner's Effort to Attribute Other Standards, Assumed by Taking Two Short Phrases Out of Their Context in the Opinion, Distorts and Contradicts the Decision Below and Presents No Need or Occasion for Review by This Court.

The chief thrust of petitioner's argument is that the court below applied an erroneous standard in confirming the district court's determination of obviousness. The entire basis of the argument lies in petitioner's taking out of context two phrases in the opinion, reading into them a meaning belied by the context, and treating the result as a standard or rule applied by the court. Any fair reading of the decision below refutes this contention.

Contrary to petitioner's argument, the court of appeals specifically and expressly (454 F.2d 517-518; Petn. pp. 3a-6a) applied the standards established by this Court in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Petitioner focuses upon two short phrases—"should have been obvious" and "should be tried"—as applying different standards. When the opinion below is read as a whole, petitioner's effort evaporates.

The opinion demonstrates that the court's use of the words or phrases "obviousness" (5 times), "was obvious" (8 times), "is obvious" (once), "should have been obvious" (once), "made the patent process obvious" (3 times), and "finding the process [or patent] obvious" (twice), consisted merely of variations of syntax, without thought or implication of hair-splitting distinctions. Throughout, the court was avowedly testing the applica-

bility of 35 U.S.C. § 103 under the standards of *Graham*. No suggestion of application of a different rule or standard is even faintly perceptible. There is no difference in substance between saying "would have been obvious [to a hypothetical man having ordinary skill in the pertinent art, if such a man were then facing the problem]" and saying "should have been obvious [to such a hypothetical man if he were there]." In either case, the effect is obviousness, which invalidates the patent.

Nor is there any greater force in petitioner's effort to turn the court's remark that "The district court was warranted in concluding that where intermediate fabrication; thought necessary to attain the desired quality of zirconium alloy, was time-consuming and contaminating, it would be apparent to those having ordinary skill in the art that elimination of the intermediate fabrication should be tried to see if it was really necessary" (454 F.2d 518; Petn. pp. 7, 5a) into application of an "obvious to try" standard. This was not a case of looking for new directions in which to experiment, as in the *Tomlinson* and other cases cited by petitioner (Petn. p. 9). Plaintiffs simply applied a double-melt-without-intermediate-fabrication procedure already known, to the equally well-known consumable electrode arc melting process (supra, pp. 4-5). In other words, the claimed invention was a logical application of a known procedure to an analogous process, which is not invention even if not previously contemplated (*General Electric Co. v. Jewel Co.*, 326 U.S. 242, 247 (1945); *Dow Co. v. Halliburton Co.*, 324 U.S. 320, 327 (1945); *Paramount Corp. v. Tri-Ergon Corp.*, 294 U.S. 464, 473 (1935)).

Even such a logical application, the first time it is practiced, is in a sense being "tried." But if a judicial observation that it would be apparent that such an application "should be tried" must stigmatize the court's determination of obviousness as resting upon an "obvious to try" standard, as petitioner contends, then the logical application of known procedures to analogous processes would be useless as an indication of obviousness.

Here again, petitioner builds its case upon the misuse of a phrase out of context. The opinion below demonstrates that the court reached its conclusion by careful application of the approved *Graham* standards, and not upon any other standard.

II. There is no Conflict of Decisions.

The foregoing demonstrates that there is no conflict of decisions between the court below and other decisions relating to the standard under which obviousness is tested. On the contrary, the court below expressly and undeviatingly applied the standards established by this Court in *Graham*, supra.

Petitioner's suggestion that a conflict of decisions exists between the court below and the Court of Customs and Patent Appeals is specious. The direct answer is that neither the CCPA, nor the Patent Office during its proceedings, had before it the prior art relied upon by the court below (FF 18, 31, Petn. pp. 15a, 18a).

The trial court, following a full trial of all issues, adjudged the patent invalid for obviousness in view of the prior art, Parke et al, Kroll and Hayes et al publications

(Sx O pp. 14-25, pp. 1-14 and pp. 65-67; FF 18, Petn. p. 15a), and the prior art Bureau of Mines "828" process (CL D, G, Petn. pp. 33a-34a), supra, p. 3. None of this art was of record in the Patent Office proceedings on the application for the patent in suit, or on appeal thence to the U.S. Court of Customs and Patent Appeals (CCPA).

In this circumstance of differing states of proof before the respective courts, any supposed conflict of decisions is only apparent and not real. *Concrete Appliances Co. v. Gomery*, 269 U.S. 177, 180 (1925).

It is well recognized that the CCPA does not decide whether an *invention* is patentable but only whether the *claims* presented to it are patentable over the art cited by the Patent Office Examiner. Even the Patent Office is not bound by this determination if other and more pertinent art is found subsequent to a CCPA decision. *Application of Ruschig*, 379 F.2d 990, 993 (CCPA 1967). Moreover, a decision of the CCPA based upon an ex parte presentation does not preclude a contrary result in a subsequent infringement suit, any more than issuance of a patent by the Patent Office has that effect, *Brenner v. Manson*, 383 U.S. 519, 526-527 (1966); nor upon inter partes consideration of the issues arising in the future, *Application of Stark*, 453 F.2d 1401, 1407 (CCPA 1972). To the contrary, the court of appeals is bound to follow the findings of the district court on questions of fact so long as those findings are not clearly erroneous, even if the CCPA's decision cannot be reconciled with it. *Watson v. Allen*, 254 F.2d 342, 347-348 (D.C. Cir. 1958).

Petitioner seeks escape from these considerations by contending that the Herres et al patent 2,541,764 which

was of record before the Patent Office and the CCPA was "more pertinent" prior art than the art upon which the court below relied (Petn. p. 5). This is not so because that process, as the CCPA held, required the addition of impure powdered metal to the remelt ingot, and it further held that the Herres patent contained no disclosure as to any improvement in properties due to the remelting (Petn. pp. 38a-41a).

In any event, the pertinency of prior art is a question of fact, upon which the decisions below are binding, *Swofford v. B & W, Inc.*, 395 F.2d 362, 363-364, 367-368 (5 Cir. 1968), cert. denied 393 U.S. 935 (1968).

III. The Court Below Correctly Assessed the Level of Ordinary Skill in the Pertinent Art in Consonance, Rather than Conflict, with Other Decisions on the Subject.

The petition (p. 12) questions the correctness of the court of appeals' assumption of a relatively high level of ordinary skill in the art in view of the specialized character of the art here in question, and complains that even "the experts" could not see the solution (Petn. pp. 12-13).[3] The controlling law fully supports the court of appeals in this regard, and no conflict of decisions exists.

The level of ordinary skill in the art depends on the art to which an alleged invention in issue as a whole appertains. *Application of Grout*, 377 F.2d 1019, 1022 (CCPA 1967); *Application of Van Wanderham*, 378 F.2d 981 (CCPA 1967). In the instant case, therefore, the

[3]The district court made no finding that the alleged invention "was not obvious to the experts in the involved art" (Petn. p. 3), but only that, impliedly, it was not obvious to the patentees, Gordon and Hurford (FF 26, 35; Petn. pp. 17a, 19a).

hypothetical "person of ordinary skill in the art" must be skilled in the art of reactive and easily oxidizable metals, such as zirconium, titanium and their alloys, and in the melting thereof. *Zoomar, Inc. v. Paillard Products*, 152 F.Supp. 328, 331 (S.D.N.Y. 1957), aff'd 258 F.2d 527 (2 Cir. 1958), cert. denied 358 U.S. 908 (1958). Here the skill and knowledge of a professional, trained metallurgist determines the level of ordinary skill in the art. *American Stainless Steel Co. v. Ludlum Steel Co.*, 290 Fed. 103, 107 (2 Cir. 1923); *Indiana General Corp. v. Krystinel Corporation*, 421 F.2d 1023 (2 Cir. 1970), cert. denied 398 U.S. 928 (1970). Where the art is complicated and advanced, one skilled in the art is necessarily an expert. *Nyssonen v. Bendix Corporation*, 342 F.2d 531, 536-537 (1 Cir. 1965), cert. denied 382 U.S. 847 (1965); *Columbia Broadcasting Sys. v. Sylvania Electric Prod., Inc.*, 415 F.2d 719, 727 (1 Cir. 1969), cert. denied 396 U.S. 1061 (1970). But alleged unobviousness to the patentees is not evidence of this legal conclusion.[4] The question is not what was or was not obvious to a particular person, but what would have been obvious to a hypothetical person who did have knowledge of the prior art. *Indiana General Corp. v. Krystinel Corporation*, supra, 421 F.2d 1023, 1028; *Mohasco Industries, Inc. v. E. T. Barwick Mills, Inc.*, 221 F.Supp. 191, 193 (N.D. Ga. 1963), aff'd per curiam 340 F.2d 319 (5 Cir. 1965), cert. denied 382 U.S. 847 (1965).

Petitioner's quotation from *Reiner v. I. Leon Co.*, 285 F.2d 501 (2 Cir. 1960) (Petn. p. 13) omits the important sentence which immediately follows the matter quoted:

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[4]The patentees' opinion on the ultimate legal issue of obviousness is not evidence. *Application of Lindell*, 385 F.2d 453, 456 (CCPA 1967).

> "There are indeed some sign posts: e.g. how long did the need exist; how many tried to find the way; how long did the surrounding and accessory art disclose the means; how immediately was the invention recognized as an answer by those who used the new variant?" (285 F.2d 504).

Here the need for the alleged invention in issue had existed for only a relatively short period of about six months before the invention was disclosed (FF 13; Petn. p. 18a); and the Bureau of Mines independently practiced the alleged invention successfully almost simultaneously with the patentees' practice thereof (FF 23, 29, 50, Cl. 6; Petn. pp. 16a, 17a, 23a, 34a). In any event, the prior art, showing every step and combination of steps necessary to the claimed invention, was available and the claimed invention was obvious as concluded by both courts below.

Petitioner disparages the action of the court below as a "hindsight subjective approach" (Petn. p. 15)—a charge all too easily leveled whenever a court finds obviousness after examining pertinent prior art which had not been brought to the attention of the Patent Office. Petitioner leveled the same charge at the district court earlier in the case. But as the court said in *Monroe Auto Equipment Company v. Superior Industries, Inc.*, 332 F.2d 473, 477 (9 Cir. 1964), cert. denied 379 U.S. 901 (1964), in affirming a judgment of patent invalidity:

> "Merely to label the trial court's determination as 'subjective hindsight' does not determine the issue."

IV. The Decision Below, Affirming the Judgment of the District Court, was also Correct for a Further Reason which was Relied upon by the District Court but which the Court Below Considered Unnecessary to its Decision.

As noted above, the district court also found obviousness from the practically contemporaneous and independent development of an identical process by others (306 F.Supp. 402, 414; Petn. pp. 33a-34a)—both developments coming only about six months after the need became evident. This independent simultaneous development of the same process is in itself persuasive evidence that the claimed invention was the product only of ordinary mechanical or engineering skill and not of inventive genius. *Concrete Appliances Co. v. Gomery*, 269 U.S. 177, 185 (1925); *Audio Devices, Inc. v. Armour Research Foundation, etc.*, 293 F.2d 102, 107 (2 Cir. 1961); *Wilson Athletic G. Mfg. Co. v. Kennedy Sport. G. Mfg. Co.*, 233 F.2d 280, 283 (2 Cir. 1956); *Graham v. Jeoffroy Mfg.*, 206 F.2d 769, 771 (5 Cir. 1953); *McElrath v. Industrial Rayon Corporation*, 123 F.2d 627, 629 (4 Cir. 1941); *Goodyear Tire and Rubber Co. v. Ladd*, 224 F.Supp. 781, 783 (D. D.C. 1963), aff'd 349 F.2d 710 (D.C. Cir. 1965), cert. denied 382 U.S. 973 (1966); *Mohasco Industries, Inc. v. E. T. Barwick Mills, Inc.*, 221 F.Supp. 191, 193 (N.D.Ga. 1963), aff'd per curiam 340 F.2d 319 (5 Cir. 1965), cert. denied 382 U.S. 847 (1965).

For this independent reason, the judgment of the district court was correct and properly affirmed, regardless of whether the court below failed to pass upon it or even rejected it. *Langues v. Green*, 282 U.S. 531, 535-539 (1931); *Baudridge v. Williams*, 397 U.S. 471, 475-476, n. 6 (1970).

V. The Claimed Invention in any Event was Anticipated by Prior Practice of the Same Process by Others; Hence the Patent in Issue is Invalid for Want of Novelty.

Though apparently overlooked by the district court, the record shows prior publication of the process which constitutes the claimed invention in the patent in issue; i.e., consumable arc melting and remelting of a titanium ingot without intermediate fabrication.

Sx O, p. 41,[3] reads:

> "An arc-melted titanium ingot 4 inches in length and 1¾ inches in cross section *was next tried as a consumable electrode* in the 6-inch-diameter melting furnace, using an alternating current of 950 amperes and with a direct current, straight polarity of 1,200 amperes. Although *the electrode appeared to melt satisfactorily*, the melting rate was too rapid for an evaluation of the amount of additionally fed titanium powder that might be melted in this manner" (emphasis added).

Thus the authors, J. A. Davis et al., in this prior published example, successfully performed the process claimed to be invented later by the patentees; i.e., the consumable electrode arc remelting of an arc-melted titanium ingot to form a new ingot *without intermediate processing or fabrication.*

In view of this anticipation of the patent process, the patent is invalid for want of novelty (35 U.S.C. §§ 101, 102(a)). *Graham v. John Deere Co.*, 338 U.S. 1, 12 (1966); *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Sup.*

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[3] U.S. Air Force Project Rand publication, March 15, 1949 (Sx O, p. 25), Appendix IV, entitled "Arc Melting of Titanium and Titanium-Base Alloys at Battelle Memorial Institute," authored by J. A. Davis, S. A. Herres, and C. T. Greenidge (Sx O, pp. 32-41).

Co., 332 F.2d 406, 414-415 (6 Cir. 1964), cert. denied 379 U. S. 888 (CCPA 1964); *Application of Tomlinson*, 363 F.2d 928, 933-934 (1966). This is so even though the patentees may have had no prior knowledge of it, *Derby v. Thompson*, 146 U.S. 476, 481-482 (1892); *Pennington v. National Supply Co.*, 95 F.2d 291, 295 (5 Cir. 1938) and though the qualities of the prior product had not been fully recognized, *General Electric Co. v. Jewel Co.*, 326 U.S. 242, 247-249 (1945).

On this further ground, even though unrecognized by the court below, *Langnes v. Green*, supra, 282 U.S. 531, 535-539 (1931), *Daudridge v. Williams*, supra, 397 U.S. 471, 475-476, n. 6 (1970), the judgment of the district court was correct and was properly affirmed below.

CONCLUSION

The contentions urged in the petition present no meritorious issue, nor any question appropriate to the exercise of this Court's jurisdiction on certiorari. The petition for a writ of certiorari should be denied.

Dated: May 16, 1972.

Respectfully submitted,

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(Appendix Follows)

Appendix

STATUTES INVOLVED

35 U.S.C. § 101. Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless——

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the appellant for patent, * * *

35 U.S.C. § 103. Conditions for patentability; non-obvious subject matter

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.